

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

Appellants: Wojcik et al.) Examiner: Scott J. Haugland
Serial No: 10/085,813)
Filed: February 28, 2002) Group Art Unit: 3654
Confirmation No: 2378)
Title: Center/Surface Rewinder and) Deposit Account No: 04-1403
Winder)
Customer No: 22827)
Attorney Docket No: KCX-450 (16960))
)

1. **NOTICE OF APPEAL:** Pursuant to 37 CFR 41.31, Applicant hereby appeals to the Board of Appeals from the decision dated _____ of the Examiner twice/finally rejecting claims _____.
2. **BRIEF** on appeal in this application pursuant to 37 CFR 41.37 is transmitted herewith (1 copy).
3. An **ORAL HEARING** is respectfully requested under 37 CFR 41.47 (due within two months after Examiner's Answer).
4. Reply Brief under 37 CFR 41.41(b) is transmitted herewith (1 copy).
5. "Small entity" verified statement filed: [] herewith [] previously.

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PATENT
ATTORNEY DOCKET NO: KCX-450 (16960)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Wojcik et al.)	Examiner: Scott J. Haugland
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Serial No: 10/085,813)	Art Unit: 3654
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Filed: February 28, 2002)	Confirmation No: 2378
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Honorable Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Honorable Commissioner:

Appellants submit the following brief on appeal in accordance with 37 C.F.R. § 41.37:

1. REAL PARTY IN INTEREST

The real party in interest in this matter is the assignee of record, Kimberly-Clark Worldwide, Inc.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants or the Appellants' legal representative which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Currently, claims 71-106 and 108-116 remain pending in the present application including independent claims 71 and 91. Claims 1-70 and 107 were previously canceled from the present application. All the pending claims are attached hereto in the Claims Appendix.

In the Final Office Action of January 3, 2008, claims 71-106 and 108-116 were finally rejected under 35 U.S.C. §103(a).

The rejection of claims 71-106 and 108-116 is hereby appealed.

4. STATUS OF AMENDMENTS

All amendments have been entered into the record.

5. SUMMARY OF CLAIMED SUBJECT MATTER

In general, the present application is directed to a winder 10 for winding a web 36 to produce a rolled product 22. See ¶ 0030. The winder 10 includes a web transport apparatus 34 that is used for conveying the web 36 and winding modules 1 independently positioned to independently engage the web 36 as the web 36 is conveyed by the web transport apparatus 34. See, e.g., Fig. 1, ¶ 0039. The winding modules may be configured to wind the web 36 to form a rolled product 22 by center winding, surface winding, and combinations of center and surface winding. See, e.g., Fig. 2, ¶ 0045. The winding modules 1 are structurally and operationally independent of one another where if one module is disabled, another may still operate to produce the rolled product 22 without shutting down the winder 10. See, e.g., Fig. 1, ¶ 0047.

For example, independent claim 71 is directed to a winder 10 for winding a web 36 to produce a rolled product 22. See, e.g., Fig. 1, ¶ 0032. The winder 10 comprises

a web transport apparatus 34 for conveying a downstream web 36. See, e.g., Fig. 1, ¶ 0032. The web transport apparatus 34 comprises a conveyor belt and has a first side and a second opposite side. See, e.g., Fig. 7, ¶ 0056. The winder 10 further comprises a plurality of winding modules 12 positioned along the web transport apparatus 34. See, e.g., Fig. 1, ¶ 0039. Each winding module 12 comprises a mandrel 26 in operative association with a driving device for center driving and rotating the mandrel 26. See, e.g., Fig. 4, ¶ 0050. The mandrel 26 has a length. See, e.g., Fig. 2, ¶ 0042. Each winding module 12 further comprises a positioning apparatus 56 in operative association with the mandrel 26. See, e.g., Fig. 4, ¶ 0048. The positioning apparatus 56 is configured to move the mandrel 26 into and out of engagement with the conveyor belt. See, e.g., Fig. 6, ¶ 0055. When the mandrel 26 is placed in engagement with the conveyor belt, a nip 68 is formed between the mandrel 26 and the conveyor belt. See, e.g., Fig. 6, ¶ 0055. The mandrels 26 are consecutively positioned along the web transport apparatus 34. See, e.g., Fig. 2, ¶ 0042. Each of the mandrels 26 extend across the web transport apparatus 34 from the first side to the second side. See, e.g., Fig. 2, ¶ 0050. The nip 68 between the mandrel 26 and the conveyor belt is used to contact a web 36 being conveyed on the conveyor belt in order to initiate winding of the web 36 on the mandrel 26. See, e.g., Fig. 2, ¶ 0050.

Dependent claim 74 is dependent upon claim 71 and adds the limitation that each mandrel 26 is movably positioned so that the distance between the mandrel 26 and the web transport apparatus 34 is varied so as to produce the nip 68 having a nip pressure, a web 36 being wound into a rolled product 22 by combination of mandrel 26

rotational speed, web 36 surface speed, incoming web 36 tension, and the nip pressure.

See, e.g., Fig. 2, ¶ 0050.

Dependent claim 77 is dependent upon claim 71 and adds the limitation that at least certain winding modules 1 further comprise a core loading apparatus 32 and a product stripping apparatus 28. See, e.g., Fig. 2, ¶ 0043-0044.

Dependent claim 82 is dependent upon claim 71 and adds the limitation that at least certain winding modules 1 further comprise a core loading apparatus 32 configured to load cores 24 onto each mandrel 26 prior to initiating winding of a web 36 onto the mandrel 26. See, e.g., Fig. 2, ¶ 0049.

Dependent claim 83 is dependent upon claim 71 and adds the limitation that the plurality of winding modules 12 are located in a substantially linear arrangement with respect to one another along the web transport apparatus 34. See, e.g., Fig. 3, ¶ 0017.

Dependent claim 85 is dependent upon claim 71 and adds the limitation that at least certain winding modules 1 further comprise a product stripping apparatus 28. See, e.g., Fig. 2, ¶ 0044.

Dependent claim 86 is dependent upon claim 71 and adds the limitation that at least certain winding modules 1 further comprise a core loading apparatus 32 and a product stripping apparatus 28. See, e.g., Fig. 2, ¶ 0042.

Dependent claim 87 is dependent upon claim 71 and adds the limitation that the plurality of winding modules 12 includes at least three winding modules 1. See, e.g., Fig. 2, ¶ 0041.

Dependent claim 88 is dependent upon claim 71 and adds the limitation that the web transport apparatus 34 includes a first side and a second and opposite side. See,

e.g., Fig. 7, ¶ 0056. The mandrel 26 of each winding module 1 is slidably positioned over the web transport apparatus 34. See, e.g., Fig. 6, ¶ 0055. Each winding module 1 is movable to the first side of the web transport apparatus 34 into a racked out position. See, e.g., Fig. 1, ¶ 0047. The winder 10 further comprises a core loading apparatus 32 for loading cores 24 on a mandrel 26. See, e.g., Fig. 2, ¶ 0042. The core loading apparatus 32 is positioned on the second side of the web transport apparatus 34. See, e.g., Fig. 14, ¶ 0028.

Dependent claim 89 is dependent upon claim 71 and adds the limitation that the web transport apparatus 34 includes a first side and a second and opposite side and wherein the mandrel 26 of each winding module 1 is slidably positioned over the web transport apparatus 34. See, e.g., Fig. 6, ¶ 0050. The winding module 6 is movable to the first side of the web transport apparatus 34 into a racked out position. See, e.g., Fig. 1, ¶ 0047-0048. The winder 10 further comprises a product stripping apparatus 28 for stripping rolled products 22 off a mandrel 26. See, e.g., Fig. 2, ¶ 0044. The product stripping apparatus 28 is positioned on the second side of the web transport apparatus 34. See, e.g., Fig. 2, ¶ 0044.

Independent claim 91 is directed to a process for unwinding a parent roll into multiple product rolls. See ¶ 0030. The process comprises unwinding a tissue web 36 from a parent roll and conveying the tissue web 36 downstream on a web transport apparatus 34. See, e.g., Fig. 7, ¶ 0056. The web transport apparatus 34 comprises a conveyor belt and has a first side and a second and opposite side. See, e.g., Fig. 5, ¶ 0056. A plurality of winding modules 12 are positioned adjacent to the web transport apparatus 34. See, e.g., Fig. 1, ¶ 0039. Each winding module 1 contains a mandrel 26.

See, e.g., Fig. 1, ¶ 0042. The mandrels 26 have a length and are consecutively positioned along the web transport apparatus 34. See, e.g., Fig. 2, ¶ 0042. Each of the mandrels 26 extend across the web transport apparatus 34 from the first side to the second side. See, e.g., Fig. 2, ¶ 0050. The process further comprises accelerating one of the mandrels 26 to a desired rotation speed. See, e.g., Fig. 6, ¶ 0049. Additionally, the process comprises positioning the rotating mandrel 26 adjacent to the conveyor belt for forming a nip 68 between the web transport apparatus 34 and the mandrel 26. See, e.g., Fig. 2, ¶ 0050. Furthermore, the process comprises conveying the tissue web 36 into the nip 68 formed between the mandrel 26 and the web transport apparatus 34 so as to initiate winding of the web 36 onto the mandrel 26. See, e.g., Fig. 6, ¶ 0050.

Dependent claim 93 is dependent upon claim 91 and further comprises the step of slitting the tissue web 36 as the web 36 is unwound to form a first slit and a second slit. See ¶ 0063. The process further comprises feeding each slit to a separate set of consecutively positioned winding modules 1 along the reel transport apparatus. See ¶ 0063.

Dependent claim 94 is dependent upon claim 91 and further comprises loading a core 24 on the mandrel 26. See, e.g., Fig. 2, ¶ 0042. Additionally, the process comprises accelerating the mandrel 26 to the desired rotation speed. See, e.g., Fig. 6, ¶ 0049. Furthermore, the process comprises positioning the winding module 1 to initiate contact between the rotating core 24 and the web 36. See ¶ 0049. The process additionally comprises controlling the position of the winding module 1 and the rotational speed of the mandrel 26 during the winding step to produce a rolled product 22 with

desired characteristics. See ¶ 0050. Lastly, the process comprises stripping the rolled product 22 from the winding module 1. See ¶ 0044.

Dependent claim 95 is dependent upon claim 91 and adds the limitation that after winding is initiated, winding is continued only by surface winding such that the mandrel 26 is positioned towards the web transport apparatus 34 at a controllable magnitude to create a nip pressure to control winding of the web 36. See ¶ 0050.

Dependent claim 97 is dependent upon claim 91 and adds the limitation that after winding is initiated, further winding is carried out by using a combination of center winding and surface winding. See ¶ 0050. Center winding occurs by driving the mandrel 26. See ¶ 0050. Surface winding occurring by positioning the mandrel 26 towards the web transport apparatus 34 at a controllable magnitude to create a nip pressure to control winding of the web 36. See, e.g., Fig. 6, ¶ 0050.

Dependent claim 98 is dependent upon claim 91 and adds the steps of forming a rolled product 22 and stripping the rolled product 22 from the mandrel 26. See ¶ 0049.

Dependent claim 103 is dependent upon claim 92. Claim 92 is dependent upon claim 91 and adds the step of placing a core 24 onto the mandrel 26 prior to positioning the mandrel 26 adjacent to the conveyor belt so that the tissue web 36 is wound onto the core 24. See ¶ 0049. Claim 103 adds the step of stripping a rolled product 22 from the mandrel 26 after the rolled product 22 is formed. See ¶ 0049.

Dependent claim 104 is dependent upon claim 103 and adds the limitation that the plurality of winding modules 12 includes at least three winding modules 1 that are positioned adjacent to the web transport apparatus 34. See, e.g., Fig. 1, ¶ 0039 and ¶ 0041. During the process at substantially the same time, a core 24 is loaded on a first

mandrel 26 of a first winding module 1, a roll of material is formed on a second mandrel 26 of a second winding module 1, and a wound roll is stripped from a third mandrel 26 of a third winding module 1. See, e.g., Fig. 8, ¶ 0067.

Dependent claim 106 is dependent upon claim 91 and adds the limitation that when a process fault is detected, the process further comprises cutting the tissue web 36 to form a leading edge and to discontinue winding on the mandrel 26. See ¶ 0062. Furthermore, the process comprises continuing to unwind the tissue web 36 from the parent roll and conveying a leading edge of the tissue web 36 downstream on the web transport apparatus 34. See ¶ 0062. Additionally, the process comprises conveying the tissue web 36 into a nip 68 formed between the web transport apparatus 34 and a second mandrel 26 so as to initiate winding of the web 36 on the second mandrel 26. See ¶ 0062.

Dependent claim 108 is dependent upon claim 93 and adds the limitation that the tissue web 36 forms more than two slits. See ¶ 0063.

Dependent claim 109 is dependent upon claim 91 and adds the step of accelerating the mandrel 26 to a rotation speed that substantially matches the speed of the conveyor belt prior to forming the nip 68 between the web transport apparatus 34 and the mandrel 26. See ¶ 0049.

Dependent claim 110 is dependent upon claim 91 and adds the limitation that after winding is initiated on the mandrel 26, the position of the mandrel 26 with respect to the web transport apparatus 34 is adjusted by a positioning apparatus 56. See ¶ 0050. The positioning apparatus 56 is configured to move the mandrel 26 towards and away from the web transport apparatus 34. See, e.g., Fig. 3, ¶ 0053. The position of

the mandrel 26 is adjusted by the positioning apparatus 56 for controlling a nip pressure between a rolled product 22 being formed on the mandrel 26 and the web transport apparatus 34 in order to produce the rolled product 22 with desired characteristics. See ¶ 0050.

Dependent claim 113 is dependent upon claim 91 and adds the limitation that when a process fault is detected, the process further comprises the steps of continuing to unwind the tissue web 36 from the parent roll without interruption and conveying the tissue web 36 into a nip 68 formed between the web transport apparatus 34 and a second mandrel 26 so as to initiate winding of the web 36 on the second mandrel 26. See ¶ 0062.

Dependent claim 114 is dependent upon claim 113 and adds the step of cutting the tissue web 36 to form a leading edge after the process fault is detected without an interruption in unwinding of the web 36. See ¶ 0062.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 71-74, 77, 83, 88, 90, 115, and 116 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 1,648,990 (hereinafter “Little”) in view of U.S. Patent No. 5,437,417 (hereinafter “Kammann”).

II. Claims 75, 84, 91, 92, 94-99, 101, 103, 105, 106, and 109-114 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 4,583,698 (hereinafter “Nistri et al.”).

III. Claim 76 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and WO 98/52857 (hereinafter “Menz et al.”).

IV. Claim 78 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 3,869,095 (hereinafter “Diltz”).

V. Claim 79 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 5,379,964 (hereinafter “Pretto et al.”).

VI. Claim 80 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 4,133,495 (hereinafter “Dowd”).

VII. Claim 81 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 4,988,052 (hereinafter “Urban”).

VIII. Claims 82, 85, 86, 88, and 89 stand rejected 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 4,208,019 (hereinafter “Dusenberry”).

IX. Claim 87 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and U.S. Patent No. 3,157,371 (hereinafter “Billingsley”).

X. Claims 93, 104, and 108 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and Nistri et al. and Billingsley.

XI. Claim 100 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and Nistri et al. and Dowd.

XII. Claim 102 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Little in view of Kammann and Nistri et al. and Menz et al.

7. ARGUMENT

Appellants respectfully submit that the presently pending claims are patentable over the cited references.

I. Claims 71-74, 77, 83, 88, 90, 115, and 116 are patentable over Little in combination with Kammann.

Little is directed to a wind-up device for sheet rubber stock. The sheet rubber stock is led to the wind-up apparatus upon a belt. The belt carries two rubber strips side by side. Consequently, two wind-up devices are located across the belt for engaging each rubber strip. Each of the wind-up units is carried in a frame and includes a wind-up roll contained in a hook-like formation 20.

In Little, when the device is to be started in operation, the wind-up roll is allowed to descend into contact with the belt. The end of the rubber sheet is started around the roll and the weight of the roll resting on the stock causes the roll to turn and the stock to be wound up. The hook-like formation of the end of the racks permits the shaft of the roll to move slightly as the thickness of the material on the roll increases.

Kammann is directed to a device for winding a plastic film web. The device can be operated in two independent modes. The first mode is described as central contact winding and the second mode is described as central gap winding. A control device controls the motors of the winding tube.

A. Independent claim 71 is patentable over Little, in proper combination with Kammann.

In comparison to independent claim 71, as admitted in the Office Action, Little fails to disclose or suggest that each mandrel extends across the web transport apparatus from a first side to a second side. According to the Office Action, "it would have been obvious to provide Little with only two modules (one set) and reduce the width of the web transport apparatus from a first side to a second side to reduce the

cost of the apparatus for uses in which it is not required to wind two webs simultaneously."

Furthermore, as admitted in the Office Action, Little fails to disclose or suggest a driving device for rotating a mandrel. In this regard, Kammann was cited as teaching a web winder with a driving device in operative association with a mandrel. According to the Office Action, "it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Little with a driving device for center driving the mandrel as taught by Kammann to provide greater control over the winding process to permit improved winding of different webs."

1. Little teaches away from mandrels extending across the web transport apparatus.

The Federal Circuit has several times expressly addressed the issue of how to evaluate an alleged case of *prima facie* obviousness to determine whether it has been properly made. For instance, "a *prima facie* case of obviousness can be rebutted if the applicant can show that the art in any material respect taught away from the claimed invention." In re Haruna, 249 F.3d 1327, 1335 (Fed. Cir. 2001), citing In re Geisler, 116 F.3d 1465, 1469 (Fed. Cir. 1997).

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994). Furthermore, a "prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." M.P.E.P. §2141.02, citing W.L. Gore & Associates v Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983).

Independent claim 71 recites “each of the mandrels extending across the web transport apparatus from the first side to the second side.” In stark contrast, Little discloses, “this belt is wide enough to carry two rubber strips side by side, in consequence the wind-up devices are made in two sets.” Thus, the “wind-up devices” are approximately only half the length of the belt. Indeed, if the wind-up device were to be extended the width of the belt, problems would arise from the rubber not being centered on the wind-up device. Furthermore, a wind-up device that spanned the length of the belt would wind-up both rubber strips at once which would render Little unsatisfactory for its intended purpose.

As noted in the Office Action, Kammann fails to remedy this deficiency. However, in an attempt to render Appellants’ limitation obvious, the Examiner states, “it would have been obvious . . . to reduce the width of the web transport apparatus so that the mandrels extend across the web transport apparatus for uses in which it is not required to wind two webs simultaneously.” Final Office Action, pg. 3, lines 4-8. Appellants’ respectfully assert that such a modification would not be obvious to one of ordinary skill in the art. Contrary to the Examiner’s statement, Little discloses no rationale or reasoning for the apparatus to be designed to process two rubber strips side by side with four wind-up rolls. Little does not indicate that the processing of the rubber stock is “required to wind two webs simultaneously” as alleged by the Office Action. Appellants note that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” KSR Int’l Co. v. Teleflex Inc., 127 S. Ct. 1727 (2007) (quoting In re Kahn, 441 F.3d 977, 988

(Fed. Cir. 2006)). Little explicitly discloses that two rubber strips are processed at once and “in consequence the wind-up devices are made in two sets.” Pg. 1, lines 31-35. As such, Little plainly teaches away from Appellants’ claim limitation that each of the mandrels extends across the web transport apparatus from the first side to the second side.

2. There is no motivation to one skilled in the art to modify Little by removing a set of modules, as proposed by the Office Action.

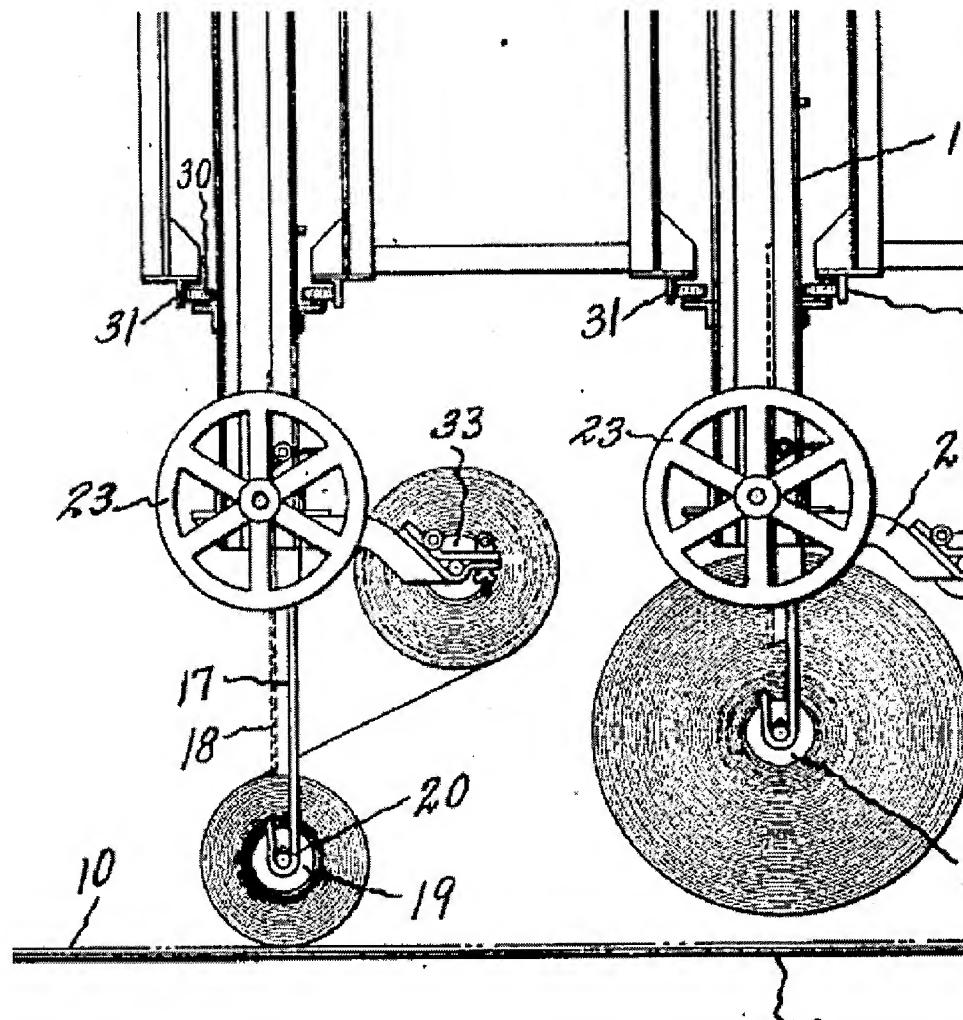
Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. In the present application, the Examiner proposes that Appellants’ claim limitation that each of the mandrels extends across the web transport apparatus from the first side to the second side would be obvious to one skilled in the art. Particularly, the Examiner suggests removing half of the modules of Little and cutting the belt roughly in half in order for the remaining modules to meet Appellants’ claim limitation. Specifically, the Examiner has simply picked two of the four winding modules and elected to only utilize half of the conveyor belt of Little. Plainly, the Examiner’s only incentive or motivation for so modifying Little in the manner suggested in the Final Office Action results from using Appellants’ disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. Accordingly, it is respectfully submitted that any such modification of the cited references relies on the impermissible use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

3. Modifying Little with the driving device of Kammann renders Little unsatisfactory for its intended purpose.

Appellants note that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In the Office Action, the Examiner proposes that "it would have been obvious . . . to provide Little with a driving device for center driving the mandrel as taught by Kammann to provide greater control over the winding process to permit improved winding of different webs." Appellants respectfully disagree. A portion of Fig. 1 of Little is reproduced and enlarged below for the Board's convenience:

Fig. 1.



As illustrated, the hook-like formation 20 permits the shaft of the roll 19 to move slightly as the thickness of the material on the roll increases. Pg. 1, lines 91-94. In this manner, the nip pressure between the roll and the belt remains relatively constant to slightly increasing nip pressure as the roll weight builds.

In stark contrast, however, if the hook-like formation 20 of Little were replaced "with a driving device for center driving the mandrel as taught by Kammann" as proposed by the Office Action, the roll will no longer be permitted to move slightly as the thickness of the material on the roll increases. Consequently, the nip pressure will build between the roll and the belt as the roll grows in girth. Eventually, as pressure mounts,

the apparatus would be rendered nonfunctioning. Appellants note that a proposed modification that renders the prior art inoperable can not sustain a *prima facie* case of obviousness.

4. Little teaches away from center driven mandrels.

As noted above, a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994).

Little discloses that "the end of the rubber sheet is started around the roll, and the weight of the roll resting on the stock will cause the roll to turn and the stock to be wound up." Pg. 1, lines 87-91. As such, equipping the apparatus of Little with a driving device for the wind-up roll as suggested by the Office Action, would be contrary to the "friction" rolling disclosed in Little. If the additional force of a driving device were supplied to the wind-up roll, the proportional speed of the wind-up roll to the belt speed would be increased and create unwanted tension or breakage in the rubber stock being wound up. As such, Little teaches away from increasing the force (i.e., roll speed) by adding a driving device.

Consequently, the Examiner's only incentive or motivation for so modifying Little in the manner suggested in the Final Office Action results from using Appellants' disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. Accordingly, it is respectfully submitted that any such modification of the cited references relies on the impermissible

use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

B. Little, in proper combination with Kammann, fails to teach or suggest the additional limitations of dependent claim 74.

Claim 74 depends from claim 71 and adds the limitation that “each mandrel is movably positioned so that the distance between the mandrel and the web transport apparatus is varied so as to produce the nip having a nip pressure, a web being wound into a rolled product by combination of mandrel rotational speed, web surface speed, incoming web tension, and the nip pressure.” Neither Little nor Kammann disclose or suggest varying the distance between the mandrel and the web transport apparatus to control a nip pressure to a desired amount. As disclosed in the present application, “the magnitude with which the core 24 is pressed onto the web transport apparatus 34 creates a nip pressure that can control the winding of the web 36 onto the core 24.” Pg. 10, lines 10-13.

C. Little, in proper combination with Kammann, fails to teach or suggest the additional limitations of dependent claim 77.

Claim 77 depends from claim 71 and adds the limitation that “at least certain winding modules further comprise a core loading apparatus and a product stripping apparatus.” One embodiment of a core loading apparatus **32** and a product stripping apparatus **28** is illustrated in Fig. 2. Neither Little nor Kammann disclose or suggest a core loading apparatus and a product stripping apparatus as claimed by dependent claim 77.

D. Little, in proper combination with Kammann, fails to teach or suggest the additional limitations of dependent claim 83.

Claim 83 depends from claim 71 and adds the limitation that "the plurality of winding modules are located in a substantially linear arrangement with respect to one another along the web transport apparatus." On the contrary, Little discloses four wind-up rolls located at different positions across the belt. Kammann fails to remedy this deficiency. As such, neither Little nor Kammann disclose or suggest a plurality of winding modules located in a substantially linear arrangement with respect to one another as claimed by Appellants.

E. Little, in proper combination with Kammann, fails to teach or suggest the additional limitations of dependent claim 88.

Claim 88 depends from claim 71 and adds the limitation that the mandrel is slidably positioned over the web transport apparatus, each winding module being movable to the first side of the web transport apparatus into a racked out position. Claim 88 further requires a core loading apparatus for loading cores on a mandrel, the core loading apparatus being positioned on the second side of the web transport apparatus. Neither Little nor Kammann disclose or suggest either the winding module being movable to the first side of the web transport apparatus into a racked out position (See, e.g. the embodiment illustrated by winding module 6 in Fig. 1) or a core loading apparatus as claimed by Appellants.

II. Claims 75, 84, 91, 92, 94-99, 101, 103, 105, 106, and 109-114 are patentable over Little in combination with Kammann and Nistri et al.

In rejecting claims 75, 84, 91, 92, 94-99, 101, 103, 105, 106, and 109-114, the Office Action combines Kammann and Nistri et al. with Little in an attempt to render the claims obvious. Nistri et al. is directed to a winding machine for forming small-diameter paper rolls on a core of cardboard and supplied from a greater-diameter roll.

A. Independent claim 91 is patentable over Little, in proper combination with Kammann and Nistri et al.

The Office Action rejects independent claim 91 for the reasons applied to independent claim 71 and cites Nistri et al. in further combination in an attempt to yield the limitation of unwinding a tissue web from a parent roll as claimed in claim 91.

1. **Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest accelerating one of the mandrels to a desired rotation speed and positioning the rotating mandrel adjacent to the conveyor belt for forming a nip between the web transport apparatus and the mandrel.**

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art references must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 91 contains the limitations of “accelerating one of the mandrels to a desired rotation speed and positioning the rotating mandrel adjacent to the conveyor belt for forming a nip between the web transport apparatus and the mandrel.” None of the references, however, disclose, suggest or teach accelerating a mandrel to a desired rotation speed and then positioning the rotating mandrel adjacent to a conveyor belt for forming a nip so as to initiate winding of the web onto the mandrel. Little, for instance, discloses a wind-up roll that is placed into contact with a belt. As stated in Little, the end of a rubber sheet is started around the wind-up roll for initiating the formation of a wound roll. Pg. 1, lines 87-88. In stark contrast to independent claim 91, however, Little does not disclose or suggest accelerating a mandrel to a desired rotation speed prior to placing the mandrel adjacent to a conveyor belt.

Neither Kammann nor Nistri et al. remedy the deficiencies of Little. Actually, Nistri et al. specifically teaches away from such a limitation. Nistri et al. states that “the rotation of the core 11 is started and, simultaneously, the sheet of web 102’ is wound onto said core. . . .” Col. 4, lines 28-29. However, the Examiner states “acceleration of the mandrels in Little is inherent in the operation of the disclosed apparatus.” Final Office Action, pg. 11, lines 5-6. Appellants respectfully disagree. Little does not disclose or suggest accelerating a mandrel to a desired rotation speed and positioning the rotating mandrel adjacent to the conveyor belt forming a nip as claimed by Appellants.

Furthermore, the Examiner states “claim 91 does not require driving the mandrel before contact with the conveyor belt, but it would have been obvious from Kammann to provide a center drive and use it in this way to prevent damage to the belt, mandrel, and web being wound.” Pg. 11, lines 7-10. While Appellants do not specifically claim “driving” the mandrel before contact with the conveyor belt, Appellants do claim accelerating the mandrel prior to contact with the conveyor belt.

Additionally, contrary to the Examiner’s assertions, even if Little could be properly combined with Kammann to provide a center drive mandrel¹, there remains no motive or suggestion in any of the references to accelerate the mandrel prior to contact with the conveyor belt. Such a motivation can only be found in Appellants’ specification. For instance, at pg. 9, lines 1-4, Appellants disclose:

Referring back to Fig. 10, the mandrel 26 is accelerated so that the speed of the mandrel 26 matches the speed of the web 36. Mandrel 26 has a core 24 located thereon. The mandrel 26 is lowered into a ready to wind

¹ See Appellants’ arguments above regarding why such a combination is improper.

position and awaits the web 36. The core 24 is moved into contact with the leading edge of the web 36.

As noted above, the Examiner's position for the obviousness of these limitations is that "to prevent damage to the belt, mandrel, and web being wound." While the Supreme Court's recent decision in KSR Int'l Co. v. Teleflex Inc. allows for "common sense" to be utilized in making an obviousness rejection, the Examiner may not simply proffer reasons and denote it as common sense. "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727 (2007) (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

2. Little teaches away from mandrels extending across the web transport apparatus.

The Federal Circuit has several times expressly addressed the issue of how to evaluate an alleged case of prima facie obviousness to determine whether it has been properly made. For instance, "a prima facie case of obviousness can be rebutted if the applicant can show that the art in any material respect taught away from the claimed invention." In re Haruna, 249 F.3d 1327, 1335 (Fed. Cir. 2001), citing In re Geisler, 116 F.3d 1465, 1469 (Fed. Cir. 1997).

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994). Furthermore, a "prior art reference must be considered in its entirety, i.e., as a whole, including portions that

would lead away from the claimed invention." M.P.E.P. §2141.02, citing W.L. Gore & Associates v Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983).

Independent claim 91 recites "each of the mandrels extending across the web transport apparatus from the first side to the second side." In stark contrast, Little discloses, "this belt is wide enough to carry two rubber strips side by side, in consequence the wind-up devices are made in two sets." Thus, the "wind-up devices" are approximately only half the length of the belt. Indeed, if the wind-up device were to be extended the width of the belt, problems would arise from the rubber not being centered on the wind-up device. Furthermore, a wind-up device that spanned the length of the belt would wind-up both rubber strips at once which would render Little unsatisfactory for its intended purpose.

As noted in the Office Action, Kammann fails to remedy this deficiency. However, in an attempt to render Appellants' limitation obvious, the Examiner states, "it would have been obvious . . . to reduce the width of the web transport apparatus so that the mandrels extend across the web transport apparatus for uses in which it is not required to wind two webs simultaneously." Final Office Action, pg. 3, lines 4-8. Appellants' respectfully assert that such a modification would not be obvious to one of ordinary skill in the art. Contrary to the Examiner's statement, Little discloses no rationale or reasoning for the apparatus to be designed to process two rubber strips side by side with four wind-up rolls. Little does not indicate that the processing of the rubber stock is "required to wind two webs simultaneously" as alleged by the Office Action. Appellants note that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with

some rational underpinning to support the legal conclusion of obviousness." KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727 (2007) (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)). Little explicitly discloses that two rubber strips are processed at once and "in consequence the wind-up devices are made in two sets." Pg. 1, lines 31-35. As such, Little plainly teaches away from Appellants' claim limitation that each of the mandrels extends across the web transport apparatus from the first side to the second side.

3. There is no motivation to one skilled in the art to modify Little by removing a set of modules, as proposed by the Office Action.

Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. In the present application, the Examiner proposes that Appellants' claim limitation that each of the mandrels extends across the web transport apparatus from the first side to the second side would be obvious to one skilled in the art. Particularly, the Examiner suggests removing half of the modules of Little and cutting the belt roughly in half in order for the remaining modules to meet Appellants' claim limitation. Specifically, the Examiner has simply picked two of the four winding modules and elected to only utilize half of the conveyor belt of Little. Plainly, the Examiner's only incentive or motivation for so modifying Little in the manner suggested in the Final Office Action results from using Appellants' disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. Accordingly, it is respectfully submitted that any such modification of the

cited references relies on the impermissible use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

4. Modifying Little with the driving device of Kammann renders Little unsatisfactory for its intended purpose.

Appellants note that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In the Office Action, the Examiner proposes that "it would have been obvious from Kammann to provide a center drive and use it in this way to prevent damage to the belt, mandrel, and web being wound" in order to achieve Appellants' claim limitation of accelerating one of the mandrels to a desired rotation speed and positioning the rotating mandrel adjacent to the conveyor belt to form a nip. Appellants respectfully disagree. A portion of Fig. 1 of Little is reproduced and enlarged above on pg. 10 of this Brief for the Board's convenience. As illustrated, the hook-like formation **20** permits the shaft of the roll **19** to move slightly as the thickness of the material on the roll increases. Pg. 1, lines 91-94. In this manner, the nip pressure between the roll and the belt remains relatively constant to slightly increasing nip pressure as the roll weight builds.

In stark contrast, however, if the hook-like formation **20** of Little were replaced "with a driving device for center driving the mandrel as taught by Kammann" as proposed by the Office Action, the roll will no longer be permitted to move slightly as the thickness of the material on the roll increases. Consequently, the nip pressure will build between the roll and the belt as the roll grows in girth. Eventually, as pressure mounts, the apparatus would be rendered nonfunctioning. Appellants note that a proposed

modification that renders the prior art inoperable can not sustain a *prima facie* case of obviousness.

5. Little teaches away from center driven mandrels.

As noted above, a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994).

As noted above, the Examiner proposes combining the center drive of Kammann with the apparatus of Little to render obvious Appellants claim limitation of accelerating one of the mandrels to a desired rotation speed and positioning the rotating mandrel adjacent to the conveyor belt to form a nip. Appellants respectfully disagree. Little discloses that "the end of the rubber sheet is started around the roll, and the weight of the roll resting on the stock will cause the roll to turn and the stock to be wound up." Pg. 1, lines 87-91. As such, equipping the apparatus of Little with a driving device for the wind-up roll as suggested by the Office Action, would be contrary to the "friction" rolling disclosed in Little. If the additional force of a driving device were supplied to the wind-up roll, the proportional speed of the wind-up roll to the belt speed would be increased and create unwanted tension or breakage in the rubber stock being wound up. As such, Little teaches away from increasing the force (i.e., roll speed) by adding a driving device.

Consequently, the Examiner's only incentive or motivation for so modifying Little in the manner suggested in the Final Office Action results from using Appellants' disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in

the prior art, which is improper under 35 U.S.C. § 103. Accordingly, it is respectfully submitted that any such modification of the cited references relies on the impermissible use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

B. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 94.

Claim 94 depends from claim 91 and adds the limitation that the process further comprises the steps of loading a core on the mandrel; accelerating the mandrel to the desired rotation speed; positioning the winding module to initiate contact between the rotating core and the web; controlling the position of the winding module and the rotational speed of the mandrel during the winding step to produce a rolled product with desired characteristics; and stripping the rolled product from the winding module. None of the cited references disclose or suggest these additional steps.

C. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 95.

Claim 95 depends from claim 91 and adds the limitation that "after winding is initiated, winding is continued only by surface winding such that the mandrel is positioned towards the web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web." None of the references disclose or suggest varying the distance between the mandrel and the web transport apparatus to control a nip pressure to a desired amount. As disclosed in the present application, "the magnitude with which the core 24 is pressed onto the web transport apparatus 34

creates a nip pressure that can control the winding of the web 36 onto the core 24." Pg. 10, lines 10-13.

D. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 97.

Claim 97 depends from claim 91 and adds the limitation that "wherein after winding is initiated, further winding is carried out by using a combination of center winding and surface winding, center winding occurring by driving the mandrel and surface winding occurring by positioning the mandrel towards the web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web." None of the references disclose or suggest using a combination of center winding and surface winding. On the contrary, Kammann explicitly teaches away from such a combination. Kammann teaches two modes of operation: contact winding and gap winding. The two modes are independent of each other. Kammann notes that the device may be switched from one mode to the other, but not operated simultaneously. Col. 4, lines 10-15. Additionally, Kammann fails to teach a "controllable magnitude" for creating a nip pressure as claimed.

E. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 98.

Claim 98 depends from claim 91 and adds the limitation that the process further comprises "the steps of forming a rolled product and stripping the rolled product from the mandrel." None of the references disclose or suggest stripping the rolled product from the mandrel. One embodiment of a stripping apparatus **28** is illustrated in Fig. 2 of the present application.

F. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 103.

Claim 103 depends from claim 92, which depends from claim 91. Claim 92 adds the limitation that the process further comprises "the step of placing a core onto the mandrel prior to positioning the mandrel adjacent to the conveyor belt so that the tissue web is wound onto the core." Claim 103 adds "the step of stripping a rolled product from the mandrel after the rolled product is formed. None of the references disclose or suggest stripping the rolled product from the mandrel. One embodiment of a stripping apparatus 28 is illustrated in Fig. 2 of the present application.

G. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 106.

Claim 106 depends from claim 91 and adds the limitations that "when a process fault is detected, the process further comprises the steps of cutting the tissue web to form a leading edge and to discontinue winding on the mandrel; continuing to unwind the tissue web from the parent roll and conveying a leading edge of the tissue web downstream on the web transport apparatus; and conveying the tissue web into a nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel." None of the references disclose or suggest preemptively discontinuing winding of a web due to a process fault. Indeed, Nistri et al. discloses "the cutting blade is normally accommodated within the roller 107, and is extended outwardly to a cutting position after a given number n of rotations of said roller." Col. 2, lines 30-33. Thus, Nistri et al. fails to disclose a means of preemptively cutting the web if a process fault occurs.

H. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 109.

Claim 109 depends from claim 91 and adds the limitation that the process further comprises “the step of accelerating the mandrel to a rotation speed that substantially matches the speed of the conveyor belt prior to forming the nip between the web transport apparatus and the mandrel.” As indicated in subheading II.(A)(1) above, none of the references disclose or suggest such a limitation.

I. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 110.

Claim 110 depends from claim 91 and adds the limitation that “after winding is initiated on the mandrel, the position of the mandrel with respect to the web transport apparatus is adjusted by a positioning apparatus, the positioning apparatus being configured to move the mandrel towards and away from the web transport apparatus for controlling a nip pressure between a rolled product being formed on the mandrel and the web transport apparatus in order to produce the rolled product with desired characteristics.” The references cited disclose forming a nip. However, none of the references disclose or suggest controlling a nip pressure to create a product with desired characteristics.

J. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 113.

Claim 113 depends from claim 91 and adds the limitations that “when a process fault is detected, the process further comprises the steps of continuing to unwind the tissue web from the parent roll without interruption; and conveying the tissue web into a

nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel.” None of the references disclose or suggest prematurely beginning winding a web on a different mandrel when a process fault occurs. Indeed, Nistri et al. discloses “the cutting blade is normally accommodated within the roller 107, and is extended outwardly to a cutting position after a given number n of rotations of said roller.” Col. 2, lines 30-33. Thus, Nistri et al. fails to disclose a means of prematurely beginning winding a web on a different mandrel when a process fault occurs.

K. Little, in proper combination with Kammann and Nistri et al., fails to teach or suggest the additional limitations of dependent claim 114.

Claim 114 depends from claim 113 and adds the “step of cutting the tissue web to form a leading edge after the process fault is detected without an interruption in unwinding of the web.” As noted in subheadings II.(G) and II.(J) above, none of the references disclose such a limitation.

III. Claim 76 is patentable over Little in combination with Kammann and Menz et al.

Claim 76 depends from claim 71. Menz et al. fails to remedy the deficiencies of Little and Kammann as noted above in subheading I.(A). As such, Appellants respectfully submit that claim 76 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 71.

IV. Claim 78 is patentable over Little in combination with Kammann and Diltz.

Claim 78 depends from claim 71. Diltz fails to remedy the deficiencies of Little and Kammann as noted above in subheading I.(A). As such, Appellants respectfully

submit that claim 78 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 71.

V. Claim 79 is patentable over Little in combination with Kammann and Pretto et al.

Claim 79 depends from claim 71. Pretto et al. fails to remedy the deficiencies of Little and Kammann as noted above in subheading I.(A). As such, Appellants respectfully submit that claim 79 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 71.

VI. Claim 80 is patentable over Little in combination with Kammann and Dowd.

Claim 80 depends from claim 71. Dowd fails to remedy the deficiencies of Little and Kammann as noted above in subheading I.(A). As such, Appellants respectfully submit that claim 80 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 71.

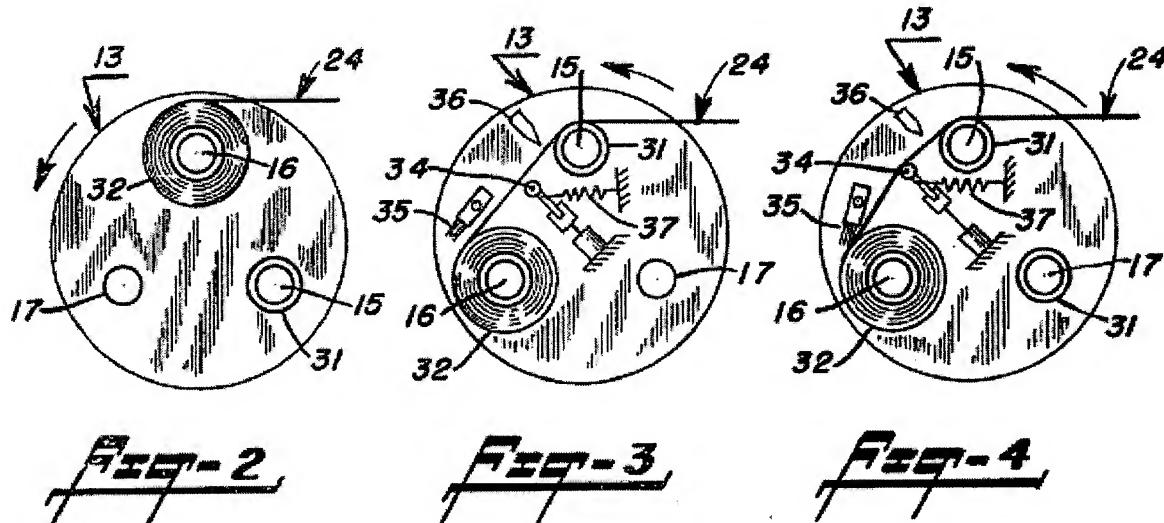
VII. Claim 81 is patentable over Little in combination with Kammann and Urban.

Claim 81 depends from claim 71. Urban fails to remedy the deficiencies of Little and Kammann as noted above in subheading I.(A). As such, Appellants respectfully submit that claim 81 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 71.

VIII. Claims 82, 85, 86, 88, and 89 are patentable over Little in combination with Kammann and Dusenberry.

Dusenberry is directed to a turret winder for pressure-sensitive tape. The apparatus includes a means for automatically inserting new cores on a mandrel positioned in the loading station. The apparatus additionally includes a means for

removing the wound rolls from a mandrel positioned in the unloading station. Figs. 2-4 of Dusenberry are illustrative of the core loading and wound roll removal stations and are reproduced below for the Board's convenience:



As illustrated, in Fig. 2, the mandrel 15 is positioned in the loading station and carries new cores 31. The tape strip 24 is being wound into a roll 32 on a core carried by the mandrel 16 positioned in the winding station. An empty mandrel 17 is in the unloading station. After the roll 32 reaches a predetermined diameter, the turret 13 is rotated 120 degrees counter-clockwise to the positions shown in Fig. 3. The tape is cut and the process begins again. See Col. 3, lines 1-44.

A. Claim 82 is patentable over Little in proper combination with Kammann and Dusenberry.

Claim 82 depends from claim 71 and adds the limitation that "at least certain winding modules further comprise a core loading apparatus configured to load cores onto each mandrel prior to initiating winding of a web onto the mandrel."

- 1. There is no motivation to one skilled in the art to modify Little by incorporating the core loading apparatus of Dusenberry as proposed by the Office Action.**

Independent claim 71 requires “wherein the mandrels are consecutively positioned along the web transport apparatus; each of the mandrels extending across the web transport apparatus from the first side to the second side.” Thus, even if the turret of Dusenberry were to be somehow retrofitted onto the apparatus disclosed by Little, Appellants’ claimed limitations noted above could not be achieved.

Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. Furthermore, Appellants emphasize that the teachings of the references must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. §103(a). Further, the appropriate test under 35 U.S.C. §103(a) is not whether the differences between the prior art and the claims are obvious, but instead whether the claimed invention as a whole would have been obvious. That is, the differences between a particular claim and the cited references cannot be viewed in a vacuum. In this case, Appellant respectfully submits that, when properly viewed as a whole, there is simply no motivation to combine the references in the manner suggested in an attempt to render obvious the present claims.

Thus, in addition to the arguments presented in subheading I.(A) regarding independent claim 71, dependent claim 82 further defines over the references as noted above.

B. Claim 85 is patentable over Little in proper combination with Kammann and Dusenberry.

Claim 85 depends from claim 71 and adds the limitation that “at least certain winding modules further comprise a product stripping apparatus.”

1. There is no motivation to one skilled in the art to modify Little by incorporating the product stripping apparatus of Dusenbery as proposed by the Office Action.

Independent claim 71 requires “wherein the mandrels are consecutively positioned along the web transport apparatus; each of the mandrels extending across the web transport apparatus from the first side to the second side.” Thus, even if the turret of Dusenbery were to be somehow retrofitted onto the apparatus disclosed by Little, Appellants’ claimed limitations noted above could not be achieved.

Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. Furthermore, Appellants emphasize that the teachings of the references must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. §103(a). Further, the appropriate test under 35 U.S.C. §103(a) is not whether the differences between the prior art and the claims are obvious, but instead whether the claimed invention as a whole would have been obvious. That is, the differences between a particular claim and the cited references cannot be viewed in a vacuum. In this case, Appellant respectfully submits that, when properly viewed as a whole, there is simply no motivation to combine the references in the manner suggested in an attempt to render obvious the present claims.

Thus, in addition to the arguments presented in subheading I.(A) regarding independent claim 71, dependent claim 85 further defines over the references as noted above.

C. Claim 86 is patentable over Little in proper combination with Kammann and Dusenbery.

Claim 86 depends from claim 71 and adds the limitation that “at least certain winding modules further comprise a core loading and product stripping apparatus.”

1. **There is no motivation to one skilled in the art to modify Little by incorporating the core loading and product stripping apparatus of Dusenberry as proposed by the Office Action.**

Independent claim 71 requires “wherein the mandrels are consecutively positioned along the web transport apparatus; each of the mandrels extending across the web transport apparatus from the first side to the second side.” Thus, even if the turret of Dusenberry were to be somehow retrofitted onto the apparatus disclosed by Little, Appellants’ claimed limitations noted above could not be achieved.

Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. Furthermore, Appellants emphasize that the teachings of the references must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. §103(a). Further, the appropriate test under 35 U.S.C. §103(a) is not whether the differences between the prior art and the claims are obvious, but instead whether the claimed invention as a whole would have been obvious. That is, the differences between a particular claim and the cited references cannot be viewed in a vacuum. In this case, Appellant respectfully submits that, when properly viewed as a whole, there is simply no motivation to combine the references in the manner suggested in an attempt to render obvious the present claims.

Thus, in addition to the arguments presented in subheading I.(A) regarding independent claim 71, dependent claim 85 further defines over the references as noted above.

D. Claim 88 is patentable over Little in proper combination with Kammann and Dusenberry.

Claim 88 depends from claim 71 and adds the limitation that the mandrel is slidably positioned over the web transport apparatus, each winding module being movable to the first side of the web transport apparatus into a racked out position. Claim 88 further requires a core loading apparatus for loading cores on a mandrel, the core loading apparatus being positioned on the second side of the web transport apparatus.

1. Proper combination of Little with Kammann and Dusenberry fails to teach or suggest all claim limitations of claim 88.

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991). None of the references disclose or suggest a winding module being movable to the first side of the web transport apparatus into a racked out position (See, e.g. the embodiment illustrated by winding module 6 in Fig. 1).

2. There is no motivation to one skilled in the art to modify Little by incorporating the core loading apparatus of Dusenberry as proposed by the Office Action.

Independent claim 71 requires “wherein the mandrels are consecutively positioned along the web transport apparatus; each of the mandrels extending across the web transport apparatus from the first side to the second side.” Thus, even if the turret of Dusenberry were to be somehow retrofitted onto the apparatus disclosed by Little, Appellants’ claimed limitations noted above could not be achieved.

Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. Furthermore, Appellants emphasize that the teachings of the references must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. §103(a). Further, the appropriate test under 35 U.S.C. §103(a) is not whether the differences between the prior art and the claims are obvious, but instead whether the claimed invention as a whole would have been obvious. That is, the differences between a particular claim and the cited references cannot be viewed in a vacuum. In this case, Appellant respectfully submits that, when properly viewed as a whole, there is simply no motivation to combine the references in the manner suggested in an attempt to render obvious the present claims.

Thus, in addition to the arguments presented in subheading I.(A) regarding independent claim 71, dependent claim 88 further defines over the references as noted above.

E. Claim 89 is patentable over Little in proper combination with Kammann and Dusenberry.

Claim 89 depends from claim 71 and adds the limitation that the mandrel is slidably positioned over the web transport apparatus, each winding module being movable to the first side of the web transport apparatus into a racked out position. Claim 89 further requires a product stripping apparatus for stripping rolled products off a mandrel, the product stripping apparatus being positioned on the second side of the web transport apparatus.

- 1. Proper combination of Little with Kammann and Dusenberry fails to teach or suggest all claim limitations of claim 89.**

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991). None of the references disclose or suggest a winding module being movable to the first side of the web transport apparatus into a racked out position (See, e.g. the embodiment illustrated by winding module 6 in Fig. 1).

2. There is no motivation to one skilled in the art to modify Little by incorporating the product stripping apparatus of Dusenberry as proposed by the Office Action.

Independent claim 71 requires “wherein the mandrels are consecutively positioned along the web transport apparatus; each of the mandrels extending across the web transport apparatus from the first side to the second side.” Thus, even if the turret of Dusenberry were to be somehow retrofitted onto the apparatus disclosed by Little, Appellants’ claimed limitations noted above could not be achieved.

Appellants note that it is improper to simply pick and choose (or dismantle) just those components needed from a prior art reference to combine in a Section 103 combination. Furthermore, Appellants emphasize that the teachings of the references must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. §103(a). Further, the appropriate test under 35 U.S.C. §103(a) is not whether the differences between the prior art and the claims are obvious, but instead whether the claimed invention as a whole would have been obvious. That is, the differences between a particular claim and the cited references cannot be viewed in a vacuum. In this case, Appellant respectfully submits that, when properly viewed as

a whole, there is simply no motivation to combine the references in the manner suggested in an attempt to render obvious the present claims.

Thus, in addition to the arguments presented in subheading I.(A) regarding independent claim 71, dependent claim 89 further defines over the references as noted above.

IX. Claim 87 is patentable over Little in combination with Kammann and Billingsley.

Claim 87 is dependent upon claim 71 and adds the limitation that "the plurality of winding modules includes at least three winding modules."

A. Modifying Little with the mandrels of Billingsley and slitting the web to permit the simultaneous winding of webs of various widths in Little renders Little unsatisfactory for its intended purpose.

Appellants note that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984). The intended purpose of Little is to achieve a continuous winding operation while removing completed rolls: "In order to keep the winding operation continuous, each of these sets includes two similar units, one of which acts while a completed roll is being removed from the other." Pg. 1, lines 35-38 (emphasis added).

Thus, the Examiner's proposed modification of Little to extend the mandrels across the width of the web transport apparatus and slit the web to permit simultaneous winding of webs of various widths is directly contrary to the intended purpose of Little. Plainly, the Examiner's only incentive or motivation for so modifying Little using the teachings of Billingsley in the manner suggested in the Final Office Action results from

using Appellant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. Accordingly, it is respectfully submitted that any such modification of the cited references relies on the impermissible use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

X. Claims 93, 104, and 108 are patentable over Little in combination with Kammann and Nistri et al. and Billingsley.

A. Claim 93 is patentable over Little in proper combination with Kammann and Nistri et al. and Billingsley.

Claim 93 is dependent upon claim 91 and adds the limitation that the process further comprises "the steps of slitting the tissue web as the web is unwound to form a first slit and a second slit and feeding each slit to a separate set of consecutively positioned winding modules along the reel transport apparatus."

1. Modifying Little with the mandrels of Billingsley and slitting the web to permit the simultaneous winding of webs of various widths in Little renders Little unsatisfactory for its intended purpose.

Appellants note that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984). The intended purpose of Little is to achieve a continuous winding operation while removing completed rolls: "In order to keep the winding operation continuous, each of these sets includes two similar units, one of which acts while a completed roll is being removed from the other." Pg. 1, lines 35-38 (emphasis added).

Thus, the Examiner's proposed modification of Little to extend the mandrels across the width of the web transport apparatus and slit the web to permit simultaneous winding of webs of various widths is directly contrary to the intended purpose of Little.

Plainly, the Examiner's only incentive or motivation for so modifying Little using the teachings of Billingsley in the manner suggested in the Final Office Action results from using Appellant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103.

Accordingly, it is respectfully submitted that any such modification of the cited references relies on the impermissible use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

B. Claim 104 is patentable over Little in proper combination with Kammann and Nistri et al. and Billingsley.

Claim 104 is dependent upon claim 103. Claim 103 is dependent upon claim 92. Claim 92 is dependent upon claim 91, which adds the "step of placing a core onto the mandrel prior to positioning the mandrel adjacent to the conveyor belt so that the tissue web is wound onto the core." Claim 103 adds the "step of stripping a rolled product from the mandrel after the rolled product is formed." Claim 104 adds the limitation that "the plurality of winding modules include at least three winding modules that are positioned adjacent to the web transport apparatus and wherein during the process at substantially the same time, a core is loaded on a first mandrel of a first winding module, a roll of material is formed on a second mandrel of a second winding module, and a wound roll is stripped from a third mandrel of a third winding module."

- 1. Proper combination of Little with Kammann and Nistri et al. and Billingsley fails to teach or suggest all claim limitations of claim 104.**

To establish a *prima facie* case of obviousness, in addition to other requirements, the prior art references must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991).

First, none of the references disclose or suggest stripping the rolled product from the mandrel. One embodiment of a stripping apparatus **28** is illustrated in Fig. 2 of the present application.

Second, none of the references disclose or suggest that at substantially the same time, a core is loaded on a first mandrel of a first winding module, a roll of material is formed on a second mandrel of a second winding module, and a wound roll is stripped from a third mandrel of a third winding module.

C. Claim 108 is patentable over Little in proper combination with Kammann and Nistri et al. and Billingsley.

Claim 108 is dependent upon claim 93. Claim 93 is dependent upon claim 91 and adds the “step of slitting the tissue web as the web is unwound to form a first slit and a second slit and feeding each slit to a separate set of consecutively positioned winding modules along the reel transport apparatus.” Claim 108 adds the limitation that the tissue web forms more than two slits.”

1. Modifying Little with the mandrels of Billingsley and slitting the web to permit the simultaneous winding of webs of various widths in Little renders Little unsatisfactory for its intended purpose.

Appellants note that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984). The intended purpose of Little is to achieve a continuous winding

operation while removing completed rolls: “In order to keep the winding operation continuous, each of these sets includes two similar units, one of which acts while a completed roll is being removed from the other.” Pg. 1, lines 35-38 (emphasis added).

Thus, the Examiner’s proposed modification of Little to extend the mandrels across the width of the web transport apparatus and slit the web to permit simultaneous winding of webs of various widths is directly contrary to the intended purpose of Little. Plainly, the Examiner’s only incentive or motivation for so modifying Little using the teachings of Billingsley in the manner suggested in the Final Office Action results from using Appellant’s disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. Accordingly, it is respectfully submitted that any such modification of the cited references relies on the impermissible use of hindsight, which cannot be successfully used to support a *prima facie* case of obviousness.

X. Claim 100 is patentable over Little in combination with Kammann and Nistri et al. and Dowd.

Claim 100 depends from claim 91. Dowd fails to remedy the deficiencies of Little and Kammann and Nistri et al. as noted above in subheading II.(A). As such, Appellants respectfully submit that claim 100 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 91.

XI. Claim 102 is patentable over Little in view of Kammann and Nistri et al. and Menz et al.

Claim 102 depends from claim 91. Menz et al. fails to remedy the deficiencies of Little and Kammann as noted above in subheading II.(A). As such, Appellants

respectfully submit that claim 102 is patentable over the combination of references for at least the reasons noted above with respect to independent claim 91.

In conclusion, Appellants request favorable action and allowance of the presently pending claims.

Respectfully requested,

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8. CLAIMS APPENDIX

1-70. (Canceled)

71. (Rejected) A winder for winding a web to produce a rolled product comprising:
a web transport apparatus for conveying a web downstream, the web transport apparatus comprising a conveyor belt, the web transport apparatus having a first side and a second and opposite side;

a plurality of winding modules positioned along the web transport apparatus, each winding module comprising:
a) a mandrel in operative association with a driving device for center driving and rotating the mandrel, the mandrel having a length; and
b) a positioning apparatus in operative association with the mandrel, the positioning apparatus being configured to move the mandrel into and out of engagement with the conveyor belt, wherein, when placed in engagement with the conveyor belt, a nip is formed between the mandrel and the conveyor belt;

and wherein the mandrels are consecutively positioned along the web transport apparatus; each of the mandrels extending across the web transport apparatus from the first side to the second side, the nip between the mandrel and the conveyor belt is used to contact a web being conveyed on the conveyor belt in order to initiate winding of the web on the mandrel.

72. (Rejected) A winder as defined in claim 71, wherein the driving device for rotating the mandrel comprises a motor.

73. (Rejected) A winder as defined in claim 71, wherein each mandrel is brake controlled.

74. (Rejected) A winder as defined in claim 71, wherein each mandrel is movably positioned so that the distance between the mandrel and the web transport apparatus is varied so as to produce the nip having a nip pressure, a web being wound into a rolled product by combination of mandrel rotational speed, web surface speed, incoming web tension, and the nip pressure.

75. (Rejected) A winder as defined in claim 71, wherein the web transport apparatus comprises a vacuum conveyor belt configured to hold a web against a surface of the conveyor belt as the web is conveyed downstream.

76. (Rejected) A winder as defined in claim 71, wherein the web transport apparatus comprises an electrostatic conveyor belt configured to hold a web against a surface of the conveyor belt as the web is conveyed downstream.

77. (Rejected) A winder as defined in claim 71, wherein at least certain winding modules further comprise a core loading apparatus and a product stripping apparatus.

78. (Rejected) A winder as defined in claim 71, wherein at least certain mandrels are vacuum supplied.

79. (Rejected) A winder as defined in claim 71, wherein at least certain mandrels are constructed of a carbon fiber composite.

80. (Rejected) A winder as defined in claim 71, wherein at least certain winding modules further comprise a tail sealing apparatus for adhering a trailing end of a web onto a rolled product.

81. (Rejected) A winder as defined in claim 71, further comprising an adhesive supply device for applying adhesive to a web prior to engagement with one of the winding modules.

82. (Rejected) A winder as defined in claim 71, wherein at least certain winding modules further comprise a core loading apparatus configured to load cores onto each mandrel prior to initiating winding of a web onto the mandrel.

83. (Rejected) A winder as defined in claim 71, wherein the plurality of winding modules are located in a substantially linear arrangement with respect to one another along the web transport apparatus.

84. (Rejected) A winder as defined in claim 71, wherein the plurality of independent winding modules are positioned at the end of a tissue machine.

85. (Rejected) A winder as defined in claim 71, wherein at least certain winding modules further comprise a product stripping apparatus.

86. (Rejected) A winder as defined in claim 71, wherein at least certain winding modules further comprise a core loading and product stripping apparatus.

87. (Rejected) A winder as defined in claim 71, wherein the plurality of winding modules includes at least three winding modules.

88. (Rejected) A winder as defined in claim 71, wherein the web transport apparatus includes a first side and a second and opposite side and wherein the mandrel of each winding module is slidably positioned over the web transport apparatus, each winding module being movable to the first side of the web transport apparatus into a racked out position;

the winder further comprising a core loading apparatus for loading cores on a mandrel, the core loading apparatus being positioned on the second side of the web transport apparatus.

89. (Rejected) A winder as defined in claim 71, wherein the web transport apparatus includes a first side and a second and opposite side and wherein the mandrel of each winding module is slidably positioned over the web transport apparatus, the winding module being movable to the first side of the web transport apparatus into a racked out position;

the winder further comprising a product stripping apparatus for stripping rolled products off a mandrel, the product stripping apparatus being positioned on the second side of the web transport apparatus.

90. (Rejected) A winder as defined in claim 71, wherein, after winding of the web on the mandrel is initiated, the positioning apparatus is configured to move the mandrel out of engagement with the conveyor belt, the driving device rotating the mandrel for continued winding of the web.

91. (Rejected) A process for unwinding a parent roll into multiple product rolls comprising:

unwinding a tissue web from a parent roll and conveying the tissue web downstream on a web transport apparatus, the web transport apparatus comprising a conveyor belt, the web transport apparatus having a first side and a second and opposite side, and wherein a plurality of winding modules are positioned adjacent to the web transport apparatus, each winding module containing a mandrel, the mandrels having a length and being consecutively positioned along the web transport apparatus,

each of the mandrels extending across the web transport apparatus from the first side to the second side;

accelerating one of the mandrels to a desired rotation speed;

positioning the rotating mandrel adjacent to the conveyor belt for forming a nip between the web transport apparatus and the mandrel; and

conveying the tissue web into the nip formed between the mandrel and the web transport apparatus so as to initiate winding of the web onto the mandrel.

92. (Rejected) A process as defined in claim 91, further comprising the step of placing a core onto the mandrel prior to positioning the mandrel adjacent to the conveyor belt so that the tissue web is wound onto the core.

93. (Rejected) A process as defined in claim 91, further comprising the steps of slitting the tissue web as the web is unwound to form a first slit and a second slit and feeding each slit to a separate set of consecutively positioned winding modules along the reel transport apparatus.

94. (Rejected) A process as defined in claim 91, further comprising the steps of:

loading a core on the mandrel;

accelerating the mandrel to the desired rotation speed;

positioning the winding module to initiate contact between the rotating core and the web;

controlling the position of the winding module and the rotational speed of the mandrel during the winding step to produce a rolled product with desired characteristics; and

stripping the rolled product from the winding module.

95. (Rejected) A process as defined in claim 91, wherein after winding is initiated, winding is continued only by surface winding such that the mandrel is positioned towards the web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web.

96. (Rejected) A process as defined in claim 91, wherein after winding of the web is initiated, further winding is carried out only by center winding by driving the mandrel at a desired rotational speed.

97. (Rejected) A process as defined in claim 91, wherein after winding is initiated, further winding is carried out by using a combination of center winding and surface winding, center winding occurring by driving the mandrel and surface winding occurring by positioning the mandrel towards the web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web.

98. (Rejected) A process as defined in claim 91, further comprising the steps of forming a rolled product and stripping the rolled product from the mandrel.

99. (Rejected) A process as defined in claim 91, wherein the winding modules are configured to act independently of one another wherein if any winding module is disabled or experiences a process fault, the remaining winding modules are configured to continue winding the web to produce the rolled product.

100. (Rejected) A process as defined in claim 91, further comprising the step of cutting the tissue web after a rolled product is formed on the mandrel and sealing a trailing edge of the tissue web to the rolled product.

101. (Rejected) A process as defined in claim 91, wherein the conveyor belt comprises a vacuum conveyor belt and wherein the process further comprises the step of holding the tissue web against a surface of the conveyor belt as the web is conveyed downstream.

102. (Rejected) A process as defined in claim 91, wherein the conveyor belt comprises an electrostatic conveyor belt and wherein the process further comprises the step of holding the tissue web against a surface of the conveyor belt as the web is conveyed downstream.

103. (Rejected) A process as defined in claim 92, further comprising the step of stripping a rolled product from the mandrel after the rolled product is formed.

104. (Rejected) A process as defined in claim 103, wherein the plurality of winding modules includes at least three winding modules that are positioned adjacent to the web transport apparatus and wherein during the process at substantially the same time, a core is loaded on a first mandrel of a first winding module, a roll of material is formed on a second mandrel of a second winding module, and a wound roll is stripped from a third mandrel of a third winding module.

105. (Rejected) A process as defined in claim 91, further comprising the steps of:

cutting the tissue web after a rolled product is formed on the mandrel;
continuing to unwind the tissue web from the parent roll and conveying a leading edge of the tissue web downstream on the web transport apparatus; and

conveying the tissue web into a nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel.

106. (Rejected) A process as defined in claim 91, wherein when a process fault is detected, the process further comprises the steps of:

cutting the tissue web to form a leading edge and to discontinue winding on the mandrel;

continuing to unwind the tissue web from the parent roll and conveying a leading edge of the tissue web downstream on the web transport apparatus; and

conveying the tissue web into a nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel.

107. (Canceled)

108. (Rejected) A process as defined in claim 93, wherein the tissue web forms more than two slits.

109. (Rejected) A process as defined in claim 91, further comprising the step of accelerating the mandrel to a rotation speed that substantially matches the speed of the conveyor belt prior to forming the nip between the web transport apparatus and the mandrel.

110. (Rejected) A process as defined in claim 91, wherein after winding is initiated on the mandrel, the position of the mandrel with respect to the web transport apparatus is adjusted by a positioning apparatus, the positioning apparatus being configured to move the mandrel towards and away from the web transport apparatus,

the position of the mandrel being adjusted by the positioning apparatus for controlling a nip pressure between a rolled product being formed on the mandrel and the web transport apparatus in order to produce the rolled product with desired characteristics.

111. (Rejected) A process as defined in claim 91, wherein each of the mandrels has substantially the same length.

112. (Rejected) A process as defined in claim 91, wherein each of the mandrels has a first end and a second and opposite end and wherein each end of each mandrel is supported by a frame during winding of the mandrels.

113. (Rejected) A process as defined in claim 91, wherein when a process fault is detected, the process further comprises the steps of:

continuing to unwind the tissue web from the parent roll without interruption; and

conveying the tissue web into a nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel.

114. (Rejected) A process as defined in claim 113, further comprising the step of cutting the tissue web to form a leading edge after the process fault is detected without an interruption in unwinding of the web.

115. (Rejected) A winder as defined in claim 71, wherein each of the mandrels has substantially the same length.

116. (Rejected) A winder as defined in claim 71, wherein each of the mandrels has a first end and a second and opposite end and wherein each end of each mandrel is supported by a frame during winding of the mandrels.

9. EVIDENCE APPENDIX

None

10. **RELATED PROCEEDINGS APPENDIX**

None